

1 THE UNITED STATES PATENT AND TRADEMARK OFFICE
2 Applicants: Frost et al Attorney Docket No: BIOL0017
3 Serial No: 09/976,237 Group Art Unit: 2877
4 Filed: October, 12, 2001 Examiner:
5 Title: METHOD AND APPARATUS FOR READING REPORTER LABELED BEADS

6 REQUEST FOR CORRECTED FILING RECEIPT

7 Bellevue, Washington 98004
8 June 25, 2002

9 TO THE DIRECTOR OF THE PATENT AND TRADEMARK OFFICE:

10 Attn: Director of the Patent and Trademark Office
11 Office of Initial Patent Examination
12 Customer Service Center
13 Arlington, VA 22202

14 An updated filing receipt issued in connection with the above-identified patent application
15 contains an error respective to priority applications. A copy of the filing receipt, a copy of the
16 application transmittal letter (dated October 12, 2001), and a copy of page 1 of the application are
17 enclosed. Correction is hereby requested.

18 Both the application transmittal letter and page 1 of the patent application include the proper
19 priority claim for this matter. Please correct the priority data for this application to include the
20 conventional application Serial No. --09/939,292 filed August 24, 2001--.

21 Respectfully submitted,

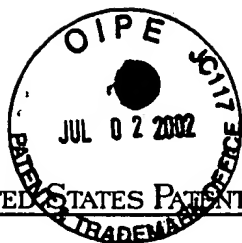
22 *Ronald M. Anderson*

23 Ronald M. Anderson
Registration No. 28,829

24 I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed
25 envelope as first class mail with postage thereon fully prepaid addressed to: Director of the Patent and
26 Trademark Office, Arlington, VA 22202, on June 25, 2002.

Date: June 25, 2002

Francis DeCe

**COPY**

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/976,237	10/12/2001	2877	435	BIOL0017	28	1	1

CONFIRMATION NO. 9706

25268

LAW OFFICES OF RONALD M ANDERSON
600 108TH AVE, NE
SUITE 507
BELLEVUE, WA 98004

UPDATED FILING RECEIPT



OC000000007530430

Date Mailed: 02/25/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)Keith L. Frost, Seattle, WA;
David A. Basiji, Seattle, WA;
Richard A. Bauer, Kirkland, WA;
Rosalynde J. Finch, Seattle, WA;
William E. Ortyn, Bainbridge Island, WA;
David J. Perry, Woodinville, WA;**Assignment For Published Patent Application**

Amnis Corporation;

Domestic Priority data as claimed by applicantTHIS APPLN CLAIMS BENEFIT OF 60/240,125 10/12/2000
AND CLAIMS BENEFIT OF 60/242,734 10/23/2000
AND CLAIMS BENEFIT OF 60/228,076 08/25/2000**Foreign Applications**

If Required, Foreign Filing License Granted 11/19/2001

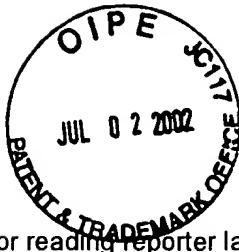
Projected Publication Date: 06/06/2002

Non-Publication Request: No

Early Publication Request: No

RECEIVED
MAR 01 2002RONALD M. ANDERSON
LAW OFFICESRECEIVED
JUL 12 2002
TECHNOLOGY CENTER 2800Dedocketed
7-1-02 KX*may 12 2002*

**** SMALL ENTITY ****



Page 2 of 2
RECEIVED
JUL 12 2002
TECHNOLOGY CENTER 2800

Title

Method and apparatus for reading reporter labeled beads

Preliminary Class

356

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



25268

PATENT, TRADEMARK OFFICE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTO/SB/05 (1/98)

Approved for use through 9/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

UTILITY PATENT APPLICATION AND FEE TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

INCOMPLETE COPY

Attorney Docket No. BIOL0017

Date: October 12, 2001

Inventor(s): Keith L. Frost, David A. Basiji, Richard A. Bauer, Rosalynde J. Finch, William E. Ortn, David J. Perry

Title METHOD AND APPARATUS FOR READING REPORTER LABELED BEADS

FULL NAME OF FIRST NAMED INVENTOR: Keith L. Frost COUNTRY OF CITIZENSHIP: US

RESIDENCE ADDRESS OF INVENTOR: 1912 - 8th Avenue West, Seattle, Washington 98119

FULL NAME OF SECOND NAMED INVENTOR: David A. Basiji COUNTRY OF CITIZENSHIP: US

RESIDENCE ADDRESS OF INVENTOR: 6538 Greenwood Avenue North, Seattle, Washington 98103

FULL NAME OF THIRD NAMED INVENTOR: Richard A. Bauer COUNTRY OF CITIZENSHIP: US

RESIDENCE ADDRESS OF INVENTOR: 13324 70th Place N.E., Kirkland, Washington 98034

FULL NAME OF FOURTH NAMED INVENTOR: Rosalynde J. Finch COUNTRY OF CITIZENSHIP: US

RESIDENCE ADDRESS OF INVENTOR: 706 21st Ave, Seattle, Washington 98122

FULL NAME OF FIFTH NAMED INVENTOR: William E. Ortn COUNTRY OF CITIZENSHIP: US

RESIDENCE ADDRESS OF INVENTOR: 11546 Matsu Place, Bainbridge Island, Washington 98110

FULL NAME OF SIXTH NAMED INVENTOR: David J. Perry COUNTRY OF CITIZENSHIP: US

RESIDENCE ADDRESS OF INVENTOR: 24017 107th Drive SE, Woodinville, Washington 98072

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ Fee Transmittal (BELOW)
2. ☒ Applicant claims small entity status. See 37 C.F.R. § 1.27.
3. ☒ Specification [Total Pages 49]
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 28] [FORMAL]
5. ☐ Oath or Declaration [Total Pages]
 - a. ☐ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d)) (for continuation/divisional with Box 17 completed) [Note Item 5 below]
 - ii. ☐ DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 C.F.R. § 1.76
7. ☐ CD-ROM or CD-R in duplicated, large table or Computer Program (Appendix)
8. ☐ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Form (CRF)
 - b. ☐ Specification Sequence Listing on: ☐ i. CD-ROM or CD-R (2 copies); or ☐ ii. Paper
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be itemized specifically)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ NONPUBLICATION REQUEST: Request and Certification under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) ☐ of prior application No: ____ / ____

Prior application information: Examiner: _____ Group / Art Unit: _____

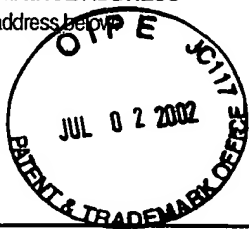
This application is based on prior copending provisional application Serial No. 60/240,125, filed on October 12, 2000, and prior copending provisional application Serial No. 60/242,734, filed on October 23, 2000, the benefits of the filing dates of which are hereby claimed under 35 U.S.C. § 119(e). This application is further based on prior copending conventional application No. 09/939,292, filed on August 24, 2001, which is based on a prior copending provisional application Serial No. 60/228,076, filed on August 25, 2000, the benefits of the filing dates of which are hereby claimed under 35 U.S.C. § 119(e). and under 35 U.S.C. § 120.

RECEIVED
JUL 12 2002
TECHNOLOGY CENTER 2800

For CONTINUATION OR DIVISIONAL APPLICATIONS only: The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 5b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein. This incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

Correspondence address below



Ronald M. Anderson
LAW OFFICES OF RONALD M. ANDERSON
600 - 108th Avenue N.E., Suite 507
Bellevue, WA 98004

Telephone: 425-688-8816

Facsimile: 425-646-6314

RECEIVED
JUL 12 2002
TECHNOLOGY CENTER 2800

FEE TRANSMITTAL

METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)																																															
<p>1. <input type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number _____</p> <p>Deposit Account Name: _____</p> <p><input type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 & 1.17</p> <p><input type="checkbox"/> Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance</p>		<p>3. ADDITIONAL FEES (Continued)</p> <table border="1"> <thead> <tr> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>Extension for reply within first month</td><td></td></tr> <tr><td>Extension for reply within second month</td><td></td></tr> <tr><td>Extension for reply within third month</td><td></td></tr> <tr><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>Notice of Appeal</td><td></td></tr> <tr><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>Request for oral hearing</td><td></td></tr> <tr><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>Design issue fee</td><td></td></tr> <tr><td>Plant issue fee</td><td></td></tr> <tr><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>Submission of Information Disclosure Statement</td><td></td></tr> <tr><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>Submission after final rejection (37 C.F.R. 1.129(a))</td><td></td></tr> <tr><td>Add'l invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td>Other fee (specify)</td><td></td></tr> </tbody> </table>		Fee Description	Fee Paid	Requesting publication of SIR after Examiner action		Extension for reply within first month		Extension for reply within second month		Extension for reply within third month		Extension for reply within fourth month		Extension for reply within fifth month		Notice of Appeal		Filing a brief in support of an appeal		Request for oral hearing		Petition to institute a public use proceeding		Petition to revive - unavoidable		Petition to revive - unintentional		Utility issue fee (or reissue)		Design issue fee		Plant issue fee		Petitions to the Commissioner		Petitions related to provisional applications		Submission of Information Disclosure Statement		Recording each patent assignment per property (times number of properties)		Submission after final rejection (37 C.F.R. 1.129(a))		Add'l invention to be examined (37 CFR 1.129(b))		Other fee (specify)	
Fee Description	Fee Paid																																																
Requesting publication of SIR after Examiner action																																																	
Extension for reply within first month																																																	
Extension for reply within second month																																																	
Extension for reply within third month																																																	
Extension for reply within fourth month																																																	
Extension for reply within fifth month																																																	
Notice of Appeal																																																	
Filing a brief in support of an appeal																																																	
Request for oral hearing																																																	
Petition to institute a public use proceeding																																																	
Petition to revive - unavoidable																																																	
Petition to revive - unintentional																																																	
Utility issue fee (or reissue)																																																	
Design issue fee																																																	
Plant issue fee																																																	
Petitions to the Commissioner																																																	
Petitions related to provisional applications																																																	
Submission of Information Disclosure Statement																																																	
Recording each patent assignment per property (times number of properties)																																																	
Submission after final rejection (37 C.F.R. 1.129(a))																																																	
Add'l invention to be examined (37 CFR 1.129(b))																																																	
Other fee (specify)																																																	
<p>2. <input type="checkbox"/> Payment Enclosed:</p> <p><input type="checkbox"/> Check (No. _____) <input type="checkbox"/> Money Order <input type="checkbox"/> Other</p> <p>X Payment NOT Enclosed</p>																																																	
FEE CALCULATION																																																	
<p>1. BASIC FILING FEE</p> <table border="1"> <thead> <tr> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>Utility filing fee</td><td>\$ 370</td></tr> <tr><td>Design filing fee</td><td></td></tr> <tr><td>Plant filing fee</td><td></td></tr> <tr><td>Reissue filing fee</td><td></td></tr> <tr><td>Provisional filing fee</td><td></td></tr> </tbody> </table>		Fee Description	Fee Paid	Utility filing fee	\$ 370	Design filing fee		Plant filing fee		Reissue filing fee		Provisional filing fee																																					
Fee Description	Fee Paid																																																
Utility filing fee	\$ 370																																																
Design filing fee																																																	
Plant filing fee																																																	
Reissue filing fee																																																	
Provisional filing fee																																																	
<p>SUBTOTAL (1)</p> <p>\$</p>																																																	
<p>2. EXTRA CLAIM FEES</p> <table border="1"> <thead> <tr> <th>Extra Claims</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total Claims -20 = x</td> <td>\$18/9 =</td> <td>\$</td> </tr> <tr> <td>Independent Claims - 3 = x</td> <td>\$84/42 =</td> <td>\$</td> </tr> <tr> <td>Multiple Dependent -0- x</td> <td>\$280/140 =</td> <td>\$</td> </tr> </tbody> </table>		Extra Claims	Fee from below	Fee Paid	Total Claims -20 = x	\$18/9 =	\$	Independent Claims - 3 = x	\$84/42 =	\$	Multiple Dependent -0- x	\$280/140 =	\$																																				
Extra Claims	Fee from below	Fee Paid																																															
Total Claims -20 = x	\$18/9 =	\$																																															
Independent Claims - 3 = x	\$84/42 =	\$																																															
Multiple Dependent -0- x	\$280/140 =	\$																																															
<p>SUBTOTAL (2)</p> <p>\$</p>																																																	
<p>FEES (SUBTOTALS (1) & (2))</p> <p>\$</p>																																																	
<p>3. ADDITIONAL FEES</p> <table border="1"> <tbody> <tr><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>Non-English specification</td><td></td></tr> <tr><td>Request for reexamination</td><td></td></tr> <tr><td>Requesting publication of SIR after Examiner action</td><td></td></tr> </tbody> </table>		Surcharge - late filing fee or oath		Surcharge - late provisional filing fee or cover sheet		Non-English specification		Request for reexamination		Requesting publication of SIR after Examiner action		<p>SUBTOTAL (3)</p> <p>\$</p>																																					
Surcharge - late filing fee or oath																																																	
Surcharge - late provisional filing fee or cover sheet																																																	
Non-English specification																																																	
Request for reexamination																																																	
Requesting publication of SIR after Examiner action																																																	
<p>TOTAL FEES ENCLOSED: \$ -0-</p>																																																	

Typed/Printed Name

Ronald M. Anderson

Registration Number: 28,829

Signature

Ron Anderson

Date: October 12, 2001

EXPRESS MAIL CERTIFICATE

Express Mail Label No. EL744182283US

Date of Deposit: October 12, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Kathy L. Paulino
(Name of person mailing paper/fee)

Kathy L. Paulino
(Signature of person mailing paper or fee)



COPY

RECEIVED
JUL 12 2002
TECHNOLOGY CENTER 2800

METHOD AND APPARATUS FOR READING REPORTER LABELED BEADS

Related Applications

This application is based on prior copending provisional application Serial
5 No. 60/240,125, filed on October 12, 2000, and prior copending provisional application
Serial No. 60/242,734, filed on October 23, 2000, the benefits of the filing dates of
which are hereby claimed under 35 U.S.C. § 119(e). This application is further based
on prior copending conventional application No. 09/939,292, filed on August 24, 2001,
which is based on a prior copending provisional application Serial No. 60/228,076,
10 filed on August 25, 2000, the benefits of the filing dates of which are hereby claimed
under 35 U.S.C. § 119(e). and under 35 U.S.C. § 120.

Field of the Invention

The present invention generally relates to a method and apparatus employed to
image an encoded reporter labeled bead, and more specifically, to a method and
15 apparatus that enable encoded reporter labeled beads to be imaged in stasis or when
entrained in a flow of fluid, such that imaging data thus obtained can be employed to
decode each encoded bead by determining the identity of reporters bound to that bead.

Background of the Invention

Single nucleotide polymorphisms (SNPs) are locations in the genome where a
20 single base substitution has occurred. SNPs are estimated to occur in the human
genome at a frequency of approximately 1:1000, implying that there are three million
SNPs in the three billion nucleotide human genome. Since most known gene
sequences are on the order of 1,000 base pairs in length, each gene is expected to
contain one SNP. It is estimated that there are 100,000 human genes, meaning that
25 there are 100,000 SNPs, which may directly affect the function and/or expression of the
resulting proteins.

The relative abundance of SNPs in the genome has stimulated efforts to
quantify the location and frequency of occurrence of single base substitutions as a tool
for the analysis of gene function. Methods for the detection of SNPs include the
30 oligonucleotide ligation assay (OLA), single-strand conformation polymorphism